RAW SEQUENCE LISTING   DATE: 12/20/2001
PATENT APPLICATION: US/09/753,143   TIME: 12:41:26

Input Set : N:\Crf3\RULE60\09753143.txt
Output Set: N:\CRF3\12202001\I753143.raw

SEQUENCE LISTING

```
 3  (1) GENERAL INFORMATION:
 5        (i) APPLICANT: NATHAN A. ELLIS, JAMES GERMAN, AND JOANNA
 6                       GRODEN
 8       (ii) TITLE OF INVENTION: METHODS FOR DIAGNOSIS AND TREATMENT
 9                        · OF BLOOM'S SYNDROME
11      (iii) NUMBER OF SEQUENCES: 78
13       (iv) CORRESPONDENCE ADDRESS:
14            (A) ADDRESSEE: AMSTER, ROTHSTEIN & EBENSTEIN
15            (B) STREET: 90 PARK AVENUE
16            (C) CITY: NEW YORK                    ENTERED
17            (D) STATE: NEW YORK
18            (E) COUNTRY: U.S.A.
19            (F) ZIP: 10016
21        (v) COMPUTER READABLE FORM:
22            (A) MEDIUM TYPE: 3.5 INCH 1.44 Mb STORAGE DISKETTE
23            (B) COMPUTER: IBM PC COMPATIBLE
24            (C) OPERATING SYSTEM: MS-DOS
25            (D) SOFTWARE: ASCII
27       (vi) CURRENT APPLICATION DATA:
C--> 28       (A) APPLICATION NUMBER: US/09/753,143
C--> 29       (B) FILING DATE: 02-Jan-2001
31      (vii) PRIOR APPLICATION DATA:
32            (A) APPLICATION NUMBER: 09/175,828
33            (B) FILING DATE: 1998-10-20
35     (viii) ATTORNEY/AGENT INFORMATION:
36            (A) NAME: ELIZABETH A. BOGOSIAN
37            (B) REGISTRATION NUMBER: 39,911
38            (C) REFERENCE/DOCKET NUMBER: 63475/65
40       (ix) TELECOMMUNICATION INFORMATION:
41            (A) TELEPHONE: (212) 697-5995
42            (B) TELEFAX: (212) 286-0854 or 286-0082
43            (C) TELEX: TWX 710-581-4766
45  (2) INFORMATION FOR SEQ ID NO: 1:
47        (i) SEQUENCE CHARACTERISTICS: -
48            (A) LENGTH: 19
49            (B) TYPE: NUCLEIC ACID
50            (C) STRANDEDNESS: SINGLE
51            (D) TOPOLOGY: LINEAR
W--> 53   (ii) MOLECULE TYPE:
54            (A) DESCRIPTION: OTHER NUCLEIC ACID
56      (iii) HYPOTHETICAL: YES
58       (iv) ANTI-SENSE: NO
60       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
62        GGTGGCGACG ACTCCTGGA      19
65  (2) INFORMATION FOR SEQ ID NO: 2:
67        (i) SEQUENCE CHARACTERISTICS:
```

RAW SEQUENCE LISTING   DATE: 12/20/2001
PATENT APPLICATION: US/09/753,143   TIME: 12:41:26

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```
        68              (A) LENGTH: 19
        69              (B) TYPE: NUCLEIC ACID
        70              (C) STRANDEDNESS: SINGLE
        71              (D) TOPOLOGY: LINEAR
W--> 73         (ii) MOLECULE TYPE:
        74              (A) DESCRIPTION: OTHER NUCLEIC ACID
        76         (iii) HYPOTHETICAL: YES
        78         (iv) ANTI-SENSE: NO
        80         (ix) FEATURE:
        81              (A) NAME/KEY:
        82              (B) LOCATION:
        83              (C) IDENTIFICATION METHOD:
        84              (D) OTHER INFORMATION:
        86         (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
        88          ACCAGACCAA CTGGTAATG      19
        91 (2) INFORMATION FOR SEQ ID NO: 3:
        93         (i) SEQUENCE CHARACTERISTICS:
        94              (A) LENGTH: 20
        95              (B) TYPE: NUCLEIC ACID
        96              (C) STRANDEDNESS: SINGLE
        97              (D) TOPOLOGY: LINEAR
W--> 99         (ii) MOLECULE TYPE:
       100              (A) DESCRIPTION: OTHER NUCLEIC ACID
       102         (iii) HYPOTHETICAL: YES
       104         (iv) ANTI-SENSE: NO
       106         (ix) FEATURE:
       107              (A) NAME/KEY:
       108              (B) LOCATION:
       109              (C) IDENTIFICATION METHOD:
       110              (D) OTHER INFORMATION:
       112         (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
       114          ATGGTAGCGA CCGGCGCTCA      20
       117 (2) INFORMATION FOR SEQ ID NO: 4:
       119         (i) SEQUENCE CHARACTERISTICS:
       120              (A) LENGTH: 20
       121              (B) TYPE: NUCLEIC ACID
       122              (C) STRANDEDNESS: SINGLE
       123              (D) TOPOLOGY: LINEAR
W--> 125        (ii) MOLECULE TYPE:
       126              (A) DESCRIPTION: OTHER NUCLEIC ACID
       128         (iii) HYPOTHETICAL: YES
       130         (iv) ANTI-SENSE: NO
       132         (ix) FEATURE:
       133              (A) NAME/KEY:
       134              (B) LOCATION:
       135              (C) IDENTIFICATION METHOD:
       136              (D) OTHER INFORMATION:
       138         (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
       140          CCGTCAGTAT CGGCGGAATT      20
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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/753,143

DATE: 12/20/2001
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Input Set : N:\Crf3\RULE60\09753143.txt
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```
143 (2) INFORMATION FOR SEQ ID NO: 5:
145       (i) SEQUENCE CHARACTERISTICS:
146             (A) LENGTH: 21
147             (B) TYPE: NUCLEIC ACID
148             (C) STRANDEDNESS: SINGLE
149             (D) TOPOLOGY: LINEAR
W--> 151     (ii) MOLECULE TYPE:
152             (A) DESCRIPTION: OTHER NUCLEIC ACID
154      (iii) HYPOTHETICAL: YES
156      (iv) ANTI-SENSE: NO
158      (ix) FEATURE:
159             (A) NAME/KEY:
160             (B) LOCATION:
161             (C) IDENTIFICATION METHOD:
162             (D) OTHER INFORMATION:
164      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
166        TTGTGGTGTT GGGTAGAGGT T    21
169 (2) INFORMATION FOR SEQ ID NO: 6:
171       (i) SEQUENCE CHARACTERISTICS:
172             (A) LENGTH: 15
173             (B) TYPE: NUCLEIC ACID
174             (C) STRANDEDNESS: SINGLE
175             (D) TOPOLOGY: LINEAR
W--> 177     (ii) MOLECULE TYPE:
178             (A) DESCRIPTION: OTHER NUCLEIC ACID
180      (iii) HYPOTHETICAL: YES
182      (iv) ANTI-SENSE: NO
184      (ix) FEATURE:
185             (A) NAME/KEY:
186             (B) LOCATION:
187             (C) IDENTIFICATION METHOD:
188             (D) OTHER INFORMATION:
190      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
192        GCCGCCGGCA CCAAC        15
195 (2) INFORMATION FOR SEQ ID NO: 7:
197       (i) SEQUENCE CHARACTERISTICS:
198             (A) LENGTH: 22
199             (B) TYPE: NUCLEIC ACID
200             (C) STRANDEDNESS: SINGLE
201             (D) TOPOLOGY: LINEAR
W--> 203     (ii) MOLECULE TYPE:
204             (A) DESCRIPTION: OTHER NUCLEIC ACID
206      (iii) HYPOTHETICAL: YES
208      (iv) ANTI-SENSE: NO
210      (ix) FEATURE:
211             (A) NAME/KEY:
212             (B) LOCATION:
213             (C) IDENTIFICATION METHOD:
214             (D) OTHER INFORMATION:
```

```
216      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
218          CCTCAGTCAA ATCTATNTGC TC         22
221 (2) INFORMATION FOR SEQ ID NO: 8:
223          (i) SEQUENCE CHARACTERISTICS:
224              (A) LENGTH: 23
225              (B) TYPE: NUCLEIC ACID
226              (C) STRANDEDNESS: SINGLE
227              (D) TOPOLOGY: LINEAR
W--> 229     (ii) MOLECULE TYPE:
230              (A) DESCRIPTION: OTHER NUCLEIC ACID
232     (iii) HYPOTHETICAL: YES
234     (iv) ANTI-SENSE: NO
236     (ix) FEATURE:
237              (A) NAME/KEY:
238              (B) LOCATION:
239              (C) IDENTIFICATION METHOD:
240              (D) OTHER INFORMATION:
242      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
244          GCCATCACCG GAACAGAAGG AAA         23
247 (2) INFORMATION FOR SEQ ID NO: 9:
249          (i) SEQUENCE CHARACTERISTICS:
250              (A) LENGTH: 22
251              (B) TYPE: NUCLEIC ACID
252              (C) STRANDEDNESS: SINGLE
253              (D) TOPOLOGY: LINEAR
W--> 255     (ii) MOLECULE TYPE:
256              (A) DESCRIPTION: OTHER NUCLEIC ACID
258     (iii) HYPOTHETICAL: YES
260     (iv) ANTI-SENSE: NO
262     (ix) FEATURE:
263              (A) NAME/KEY:
264              (B) LOCATION:
265              (C) IDENTIFICATION METHOD:
266              (D) OTHER INFORMATION:
268      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
270          TCTTCTGGAG GAGGTGGAAC AA          22
273 (2) INFORMATION FOR SEQ ID NO: 10:
275          (i) SEQUENCE CHARACTERISTICS:
276              (A) LENGTH: 19
277              (B) TYPE: NUCLEIC ACID
278              (C) STRANDEDNESS: SINGLE
279              (D) TOPOLOGY: LINEAR
W--> 281     (ii) MOLECULE TYPE:
282              (A) DESCRIPTION: OTHER NUCLEIC ACID
284     (iii) HYPOTHETICAL: YES
286     (iv) ANTI-SENSE: NO
288     (ix) FEATURE:
289              (A) NAME/KEY:
290              (B) LOCATION:
```

```
291            (C) IDENTIFICATION METHOD:
292            (D) OTHER INFORMATION:
294      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
296          GGATCCTGGT TCCGTCCGC       19
299  (2) INFORMATION FOR SEQ ID NO: 11:
301          (i) SEQUENCE CHARACTERISTICS:
302              (A) LENGTH: 21
303              (B) TYPE: NUCLEIC ACID
304              (C) STRANDEDNESS: SINGLE
305              (D) TOPOLOGY: LINEAR
W--> 307     (ii) MOLECULE TYPE:
308              (A) DESCRIPTION: OTHER NUCLEIC ACID
310         (iii) HYPOTHETICAL: YES
312          (iv) ANTI-SENSE: NO
314          (ix) FEATURE:
315              (A) NAME/KEY:
316              (B) LOCATION:
317              (C) IDENTIFICATION METHOD:
318              (D) OTHER INFORMATION:
320          (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:
322          CAACTAGAAC GTCACTCAGC C        21
325  (2) INFORMATION FOR SEQ ID NO: 12:
327          (i) SEQUENCE CHARACTERISTICS:
328              (A) LENGTH: 22
329              (B) TYPE: NUCLEIC ACID
330              (C) STRANDEDNESS: SINGLE
331              (D) TOPOLOGY: LINEAR
W--> 333     (ii) MOLECULE TYPE:
334              (A) DESCRIPTION: OTHER NUCLEIC ACID
336         (iii) HYPOTHETICAL: YES
338          (iv) ANTI-SENSE: NO
340          (ix) FEATURE:
341              (A) NAME/KEY:
342              (B) LOCATION:
343              (C) IDENTIFICATION METHOD:
344              (D) OTHER INFORMATION:
346          (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:
348          GACTTTTCCT TCAGTGAACC TC       22
351  (2) INFORMATION FOR SEQ ID NO: 13:
353          (i) SEQUENCE CHARACTERISTICS:
354              (A) LENGTH: 21
355              (B) TYPE: NUCLEIC ACID
356              (C) STRANDEDNESS: SINGLE
357              (D) TOPOLOGY: LINEAR
W--> 359     (ii) MOLECULE TYPE:
360              (A) DESCRIPTION: OTHER NUCLEIC ACID
362         (iii) HYPOTHETICAL: YES
364          (iv) ANTI-SENSE: NO
366          (ix) FEATURE:
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VERIFICATION SUMMARY
PATENT APPLICATION: US/09/753,143

DATE: 12/20/2001
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Input Set : N:\Crf3\RULE60\09753143.txt
Output Set: N:\CRF3\12202001\I753143.raw

```
L:28 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
L:29 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]
L:53 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=1
L:73 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=2
L:99 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=3
L:125 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=4
L:151 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=5
L:177 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=6
L:203 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=7
L:229 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=8
L:255 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=9
L:281 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=10
L:307 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=11
L:333 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=12
L:359 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=13
L:385 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=14
L:412 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=15
L:439 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=16
L:465 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=17
L:490 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=18
L:515 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=19
L:540 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=20
L:566 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=21
L:591 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=22
L:617 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=23
L:643 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=24
L:670 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=25
L:695 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=26
L:721 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=27
L:747 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=28
L:773 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=29
L:799 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=30
L:825 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=31
L:851 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=32
L:877 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=33
L:903 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=34
L:929 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=35
L:955 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=36
L:981 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=37
L:1008 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=38
L:1034 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=39
L:1060 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=40
L:1086 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=41
L:1112 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=42
L:1138 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=43
L:1164 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=44
L:1190 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=45
L:1216 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=46
```

VERIFICATION SUMMARY
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Input Set : **N:\Crf3\RULE60\09753143.txt**
Output Set: **N:\CRF3\12202001\I753143.raw**

L:1242 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=47
L:1268 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=48
L:1294 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=49
L:1320 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=50